Turbines

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SECAB.I.E.T, MECHANICAL ENGINEERING
DEPARTMENT, BAGALKOT ROAD,
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"Education is the most powerful weapon which you can use to change the world"

From HOD'S Desk

It is my pleasure to welcome you to the department of mechanical engineering at the SECAB institute of engineering and technology Vijaypur. Mechanical engineering has been thought of traditionally as a professional discipline and the mechanical engineers of today are multidisciplinary, with knowledge from other branches of engineering.

The academic programmes of the department reflect not only the core areas of mechanical engineer but also the research specialization of the faculty. All the faculties are working in close co-operation while retaining individual identities. We provide our students with a solid engineering education that focuses on creativity, innovation, strong ethical responsibility and place equal emphasis on developing strong leadership qualities in our students.

As far as the faculties of the department is concerned, I am very happy to inform you that, we have great team of well qualified, dedicated, devoted, young, energetic and dynamic faculty members who are very brilliant in handling the challenging subjects in a very easy and graspable way by applying a various new teaching methods and intelligible demonstrations during the course of work. Further, Faculty pay dedicated attention to vigorous research and students' projects engendering in them untiring efforts, indomitable will, immense patience and soft skills as desired by industry.

Nissar M Mirji
3rd SEM

Machine & Mechanisms

A Mechanism is considered to be a soul of a machine and it would be not wrong to say machines and mechanisms are two faces of same coin. So it is very much essential being a mechanical engineering student to have sound knowledge regarding mechanism. In order to implement for any engineering applications basics of mechanism is must hence there are some of the important mechanical mechanism related websites

1. www. Technolologystudent.com
2. www. Dtonline.com
3. www.robives.com

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Anwarullah
5th SEM

WHAT ARE BIOFUELS.....?

The basic and the important need of today's human beings life in the world are of the alternative fuel. There are so many sources exits in the form of a) renewable energy b) non-renewable energy, such as coal, mineral diesel and petrol. There is huge demand for this non-renewable energy sources and this demand is increasing day by day, which could create a critical problem in the future because of unbalance demand-supply ratio of these non-renewable energy sources, this could cause the energy crises, which could become an abstracts in the development of human being. During recent years high activities can be observed in the field of alternative fuels, due to supply of petroleum fuels strongly depends on a small number of oil exporting countries. The demand for diesel and gasoline is increased drastically. It has been estimated that the demand for diesel will be increasing day by day. Hence, government of India has taken necessary steps to fulfil future diesel and gasoline demand and to meet the stringent emission norms. Bio-diesel and alcohol are being considered to be supplementary fuels to the petroleum fuels in India. Biodiesel as one promising alternative to fossil fuel for diesel engines has become increasingly important due to environmental consequences of petroleum-fuelled diesel engines and the decreasing petroleum resources. Biodiesel can be produced by chemically combining any natural oil or fat with an alcohol such as methanol or ethanol.

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These biofuels are being looked to provide employment generation to rural people through plantation of vegetable oils. Bio-diesels are derived from edible oils and non edible oils such as Simarouba, Jatropha, Pongamia, Mahua, soyabean, Cotton seed, Neem, Sunflower, Rapeseed, Palm etc. Direct use of vegetable oils or animal fats as fuel can cause numerous engine problems like poor fuel atomization, incomplete combustion and carbon deposition formation, engine fouling and lubrication oil contamination, which is due to higher viscosity. The basic and the important need of today's human beings life in the world are of the alternative fuel. Hence the viscosity of vegetable oils can be reduced by several methods which include blending of oils, micro emulsification, cracking / pyrolysis and transesterification. Among this transesterification is widely used for industrial biodiesel production. Bio-diesel is produced through a chemical reaction known as transesterification. For transesterification process methanol was commonly used, because methanol is cheaper than ethanol and the recovery of unreacted methanol is easier. In the case of base catalyst potassium hydroxide (KOH) or sodium hydroxide (NaOH) are used, because it is less expensive and easy to handle in storage and transport. High free fatty acid (FFA) content of oil samples needs two stages etherification and transesterification. These two steps approach is also known as acid catalysis followed by alkali catalysis.

Dheeraj Kumar Singh
7th SEM

THE INVINCIBLE VINCI

Leonardo di ser Piere da Vinci (1452- 1519), was an Italian polymath , painter, sculptor, architect, musician, mathematician, engineer, inventor, anatomist, geologist, cartographer, botanist, and writer. He was one of the key figures of the Renaissance. a great cultural movement that had begun in Italy in the 1300's. His portrait Mona Lisa and his religious scene The Last Supper rank among the most famous picture sever painted.

Although James Watt is credited with inventing the modern steam engine, Da Vinci had designed a much simpler form of Watt 's engine that operated by flywheel and crank. Leonardo also worked on a system for lifting heavy loads, which incorporated what is now known as the worm gear. The "endless screw," as Da Vinci called it, was turned by a crank and meshed with the teeth of a gear that rotated and raised the load.

Leonardo's helicopter was designed as a human powered machine. Unfortunately for Leonardo, engines had not been invented yet and humans have nowhere near the power to weight ratio required for them to produce enough energy to lift themselves against the force of gravity. It was designed to work by having two men standing in the central circular platform. Each man would take hold of a wooden shaft and walk around the central shaft. This would rotate the "blades" of the helicopter and supposedly produce flight.

ENIFFER .P.S 7th sem

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